

IN THE CLAIMS

Claims 1-21 (Canceled).

22. (New) A packet voice communication system comprising:
- at least one processor capable of detecting an off-hook condition of a first telephony device;
- the at least one processor capable of receiving, from the first telephony device, information identifying a second telephony device;
- the at least one processor capable of determining whether a packet network address corresponding to the information identifying the second telephony device is available;
- the at least one processor capable of prompting a user of the first telephony device for a packet network address corresponding to the second telephony device, if it is determined that a packet network address corresponding to the information identifying the second telephony device is not available; and
- the at least one processor capable of establishing voice communication between the first telephony device and the second telephony device via a packet network, if the packet network address corresponding to the information identifying the second telephony device is available.

23. (New) The system of claim 22 wherein the first telephony device is a conventional telephone.

24. (New) The system of claim 22 wherein the second telephony device is a conventional telephone.

25. (New) The system of claim 22 further comprising:

the at least one processor capable of prompting a user of the first telephony device for information identifying a second telephony device.

26. (New) The system of claim 22 wherein prompting comprises:

transmitting an audio signal to the first telephony device.

27. (New) The system of claim 26 wherein the audio signal comprises at least one tone.

28. (New) The system of claim 26 wherein the audio signal comprises prerecorded speech.

29. (New) The system of claim 22 wherein the information identifying the second telephony device comprises a conventional telephone number.

30. (New) The system of claim 22 wherein determining comprises:
comparing the information identifying the second telephony device to at least one entry in a table, the at least one entry comprising information identifying a telephony device and a corresponding packet network address.

31. (New) The system of claim 22 wherein the packet network address comprises an Internet protocol (IP) address.

32. (New) The system of claim 22 wherein the packet network is the Internet.

33. (New) The system of claim 22 wherein establishing comprises:
sending a call setup request to the packet network address corresponding to the second telephony device;
determining whether an acceptance of the call setup request is received within a predetermined amount of time;
notifying the user of the first telephony device, if an acceptance of the call setup request is not received within the predetermined amount of time; and

transmitting digitized voice packets to the packet network address corresponding to the second telephony device, if an acceptance of the call setup request is received within the predetermined amount of time.

34. (New) The system of claim 33 wherein transmitting comprises:
converting voice signals from the first telephony device to produce digitized voice information; and
packetizing the digitized voice information to produce digitized voice packets.

35. (New) The system of claim 34 wherein the packetizing comprises:
determining whether voice activity of the user of the first telephony device is below a predetermined level;
changing the contents of packets sent to the packet network address corresponding to the second telephony device, if voice activity of the user of the first telephony device is determined to be below the predetermined level; and
refraining from changing the contents of packets sent to the packet network address corresponding to the second telephony device, if the voice activity is determined not to be below the predetermined level.

36. (New) The system of claim 22 wherein establishing comprises:
sending a call setup request to the packet network address corresponding to the second telephony device;
determining whether an acceptance of the call setup request is received within a predetermined amount of time;
notifying the user of the first telephony device, if an acceptance of the call setup request is not received within the predetermined amount of time; and
accepting digitized voice packets from the packet network address corresponding to the second telephony device, if an acceptance of the call setup request is received within the predetermined amount of time.

37. (New) The system of claim 36 wherein accepting comprises:
depacketizing digitized voice packets from the packet network address corresponding to
the second telephony device, to produce digitized voice information; and
converting the digitized voice information to voice signals for delivery to the first
telephony device.

38. (New) The system of claim 37 wherein converting comprises:
buffering digitized voice packets for an adjustable period of time in order to minimize
gaps in the voice signals.

39. (New) The system of claim 38 wherein the adjustable period of time is based upon
a propagation delay of the packet network.

40. (New) A machine-readable storage, having stored thereon a computer program
having a plurality of code sections for communicatively coupling a first telephony device and a
second telephony device via a packet network, the code sections executable by a machine for
causing the machine to perform the operations comprising:

receiving information identifying the second telephony device from the first telephony
device;

determining whether a packet network address corresponding to the second telephony
device is available;

sending a call setup request to the packet network address corresponding to the second
telephony device, if it is determined that a packet network address corresponding to the second
telephony device is available; and

establishing voice communication between the first telephony device and the second
telephony device via the packet network, if an acceptance of the call setup request is received
within a predetermined amount of time.

41. (New) The machine-readable storage of claim 40 further comprising:

notifying a user of the first telephony device, if an acceptance of the call setup request is not received within the predetermined amount of time.

42. (New) The machine-readable storage of claim 40 further comprising:
prompting a user of the first telephony device to enter a packet network address corresponding to the second telephony device, if it is determined that a packet network address corresponding to the second telephony device is not available.

43. (New) The machine-readable storage of claim 42 wherein prompting comprises:
transmitting an audio signal to the first telephony device.

44. (New) The machine-readable storage of claim 43 wherein the audio signal comprises at least one tone.

45. (New) The machine-readable storage of claim 43 wherein the audio signal comprises prerecorded speech.

46. (New) The machine-readable storage of claim 40 wherein the first telephony device is a conventional telephone.

47. (New) The machine-readable storage of claim 40 wherein the second telephony device is a conventional telephone.

48. (New) The machine-readable storage of claim 40 wherein the information identifying the second telephony device comprises a conventional telephone number.

49. (New) The machine-readable storage of claim 40 wherein determining comprises:

comparing the information identifying the second telephony device to at least one entry in a table, the at least one entry comprising information identifying a telephony device and a corresponding packet network address.

50. (New) The machine-readable storage of claim 40 wherein the packet network address comprises an Internet protocol (IP) address.

51. (New) The machine-readable storage of claim 40 wherein the packet network is the Internet.

52. (New) The machine-readable storage of claim 40 wherein the establishing comprises:

accepting voice packets comprising voice information from the second telephony device;
buffering the voice packets for a period of time based upon a propagation delay of the packet network; and

converting the voice packets to analog voice signals.

53. (New) The machine-readable storage of claim 40 wherein the establishing comprises converting analog voice signals from the first telephony device to voice packets for transmission to the packet network address corresponding to the second telephony device;
determining voice activity of a user of the first telephony device; and
reducing the volume of voice packets for transmission to the packet network address corresponding to the second telephony device, based upon the determined voice activity.

54. (New) A method for communicatively coupling a first telephony device and a second telephony device via a packet network, the method comprising:

receiving, from the first telephony device, information identifying the second telephony device;

determining whether a packet network address corresponding to the second telephony device is available;

sending, to the packet network address corresponding to the second telephony device, a call setup request, if it is determined that a packet network address corresponding to the second telephony device is available;

receiving, from the packet network address corresponding to the second telephony device, status information for the second telephony device; and

notifying a user of the first telephony device of a busy condition, if status information indicating a busy condition is received.

55. (New) The method of claim 54 further comprising:

prompting a user of the first telephony device for a packet network address corresponding to the second telephony device, if it is determined that a packet network address corresponding to the second telephony device is not available.

56. (New) The method of claim 55 wherein prompting comprises:

transmitting at least one of a tone and prerecorded speech to the first telephony device.

57. (New) The method of claim 54 wherein the first telephony device is a conventional telephone.

58. (New) The method of claim 54 wherein the second telephony device is a conventional telephone.

59. (New) The method of claim 54 wherein the information identifying the second telephony device comprises at least one digit.

60. (New) The method of claim 54 wherein determining comprises:

comparing the information identifying the second telephony device to at least one entry in a table, the at least one entry comprising information identifying a telephony device and a corresponding packet network address.

61. (New) The method of claim 54 wherein the packet network address comprises an Internet protocol (IP) address.

62. (New) The method of claim 54 wherein the packet network is the Internet.

63. (New) The method of claim 54 further comprising establishing voice communication between the first telephony device and the second telephony device via the packet network, if status information indicating acceptance of the call setup request is received; and

wherein establishing comprises:

sending, to the packet network address corresponding to the second telephony device, voice packets comprising digitized voice information; and

receiving, from the packet network address corresponding to the second telephony device, voice packets comprising digitized voice information.

64. (New) The method of claim 63 wherein sending and receiving comprise: communicating digitized voice information using modem signals.

65. (New) The method of claim 63 wherein establishing further comprises: buffering the received voice packets for a period of time based upon a propagation delay of the packet network; and

converting the digitized voice information in the received voice packets to analog voice signals.

66. (New) The method of claim 63 wherein the establishing further comprises determining voice activity of a user of the first telephony device; and adjusting the number of voice packets transmitted to the packet network address corresponding to the second telephony device, based upon the determined voice activity.

67. (New) The method of claim 54 wherein the notifying comprises:
transmitting, to the first telephony device, at least one of a tone and prerecorded
speech.